CLAIMS

1. (Original) A circuit for applying a load to first and second differential signals of a differential pair of signals, comprising:

a diode quad having first through fourth nodes;

a first current source coupled to the first node; and

a second current source coupled to the second node;

wherein the third and fourth nodes are adapted respectively to receive the first and second differential signals of the differential pair of signals.

2. (Original) A circuit as recited in claim 1, wherein at least one of the first and second current sources is programmable.

3. (Original) A circuit as recited in claim 1, wherein the first and second current sources are independently programmable.

4. (Original) A circuit as recited in claim 1, wherein one programming value establishes the current of both the first current source and the second current source.

5. (Original) A circuit as recited in claim 1, wherein the diode quad comprises four Schottky diodes.

6. (Original) A circuit as recited in claim 1, wherein the diode quad comprises four elements, each element comprising one or more diodes connected in series.

7. (Original) A circuit as recited in claim 1, wherein the diode quad comprises at least four semiconductor devices each having diode characteristics.

8. (Original) A circuit as recited in claim 1, wherein the first and second current sources are coupled to respective power supplies referenced to a common DC voltage.

9. (Original) A circuit as recited in claim 8, wherein the DC voltage is ground.

10. (Original) A pin electronics circuit for use in an automatic test system, comprising:

a differential load having first and second terminals that are connectable to nodes of a unit under test, the differential load including—

a diode quad having a first node coupled to a first current source,

a second node coupled to a second current source;

a third node coupled to the first terminal of the differential load, and

a fourth node coupled to the second terminal of the differential load.

11. (Original) A pin electronics circuit as recited in claim 10, wherein the diode quad comprises four Schottky diodes.

12. (Original) A pin electronics circuit as recited in claim 10, wherein the diode quad comprises four elements, each element comprising one or more diodes connected in series.

13. (Original) A pin electronics circuit as recited in claim 10, wherein the diode quad comprises at least four semiconductor devices each having diode characteristics.

14. (Original) A circuit as recited in claim 10, wherein the first and second current sources are coupled to respective power supplies referenced to a common DC voltage.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)